



FACT SHEET

DART Buoy Technology for Tsunamis and Other Coastal Hazards

What is DART?

DART refers to Deep-ocean Assessment and Reporting of Tsunamis, a monitoring system that is used to detect, measure, and

report the presence of tsunamis. The U.S.-designed system includes two components: (1) a bottom pressure recorder (BPR) that sits on the seafloor bottom to measure differences in water pressure, and (2) a companion surface buoy for real-time satellite communications. An acoustical link then transmits data from the BPR on the seafloor to the surface buoy. DART is the sensor and platform technology on which the US tsunami warning system is based.

DART data, along with data from seismometers and tide gauges, is processed through a forecast model that provides the information to tsunami warning centers to issue alerts and warnings—or to cancel them. This deep

ocean sensor capability is used to improve quality assurance and reliability of the warning system, reduce the risks of false alarms, and provides much longer warning lead times as compared to relying on a network of sea level gauges alone.

DART II is the current generation of DART technology. It allows for two-way communications with the buoy and sensor so that system operators can access more timely information. A smaller scale version of the DART II system, DART II Easy-to-Deploy (ETD), is now being tested and is nearly operational. It is inexpensive, vandal resistant, and requires no special equipment to deploy.



D. McKinnie, NOAA

NOAA's DART II system includes a surface buoy and bottom pressure recorder to provide timely information used to detect, measure, and report the presence of tsunamis.

